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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,771	11/26/2003	Kazunori Hashimoto	4105-27	9106
23117 7590 06/11/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER ABDI, AMARA	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/721,771	Applicant(s) HASHIMOTO, KAZUNORI	
	Examiner Amara Abdi	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/29/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/26/2003
03/08/2005.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Reference character **S35** in **figure 10** was not mentioned in the specification.
- Reference character **S36** in **figure 10** was not mentioned in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-3 are objected to because of the following informalities:

(1) Claim 1, line 9, "a difference" should be changed to "**the** difference"; the same informality were found in claim 4, line 10, and claim 5, line 28; also on line 11,

"a plurality" should be changed to "**the** plurality"; and the same informality was found in claim 4, line 12, and claim 5, line 30.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 5 is rejected under U.S.C. 101 because the claimed invention is directed to non- statutory subject matter.

In claim 5, "a smoothing processing program" is being recited; however, a smoothing processing program would reasonably be interpreted by one of ordinary skill in the art as software, pre se.

This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al. (US 5,862,2640).

(1) Regarding claim 1:

Ishikawa et al. disclose a smoothing processor of image data (column 2, line 7-8), a smoothing processing method (column 1, line 65), and a smoothing processing program (column 5, line 13), comprising:

a data obtaining unit (31 in figure 2) which obtains the image data including a plurality of unit image data arranged in time series (column 5, line 38-40), (the examiner interpreted the image memory as the data obtaining unit, which receives image data from document or from external recording device);

a determining unit (57 in figure 9) which determines a difference between object unit image data which is subjected to processing and preceding unit image data which is immediately before the object unit image data and a difference between the object unit image data and subsequent unit image data which is immediately after the object unit image data, for a plurality of blocks constituting the unit image data (column 9, line 48-50), (the examiner interpreted the determining of difference between the object unit image data and preceding unit as the same concept as the difference between the object image data and the subsequent unit image data); and

a smoothing unit (21-27 figure 10) which executes smoothing by utilizing the object unit image data and one of the preceding unit image data and the subsequent unit image data having a smaller difference, based on a determination result by the

determining unit (column 9, line 58-67), (the examiner interpreted the smoothing unit as the compression process which comprises the steps 21 to 27).

(2) Regarding claim 2:

Ishikawa et al. disclose a smoothing processor of image data (column 2, line 7-8), where the determining unit (57 in figure 9) comprises:

a unit (55 in figure 9) which determines whether or not the differences are equal to or larger than a predetermined value for each block (column 9, line 48-50); and

a unit (24 in figure 10) which determines one of the preceding unit image data and the subsequent unit image data including less blocks whose difference is equal to or larger than the predetermined value, as the unit image data having smaller difference (column 9, line 65-67; and column 10, line 1), (the examiner interpreted the determining of a difference between the range block BR and the reduction patterns BDP1 through BDP8 as the same concept as the difference between the preceding unit image data and the subsequent unit image data).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. in view of Ishiguro (US PG-PUB 2003/0048958).

Ishikawa et al. disclose all the subject matter as described in claim 2 above.

Furthermore, Ishikawa et al. disclose the smoothing processor, where the smoothing unit executes smoothing by utilizing the object unit image data and the unit image data having smaller difference for the block whose difference is smaller than predetermined value (column 9, line 65-67; and column 10, line 1, the object unit image is read as "range block BR", and the unit image data is read as "reduction pattern BDP").

However, Ishikawa et al. does not disclose the smoothing processor, where the smoothing is executed by utilizing only the object unit image data for the block whose difference is equal to or larger than the predetermined value as recited in claim 3.

Ishiguro teaches an image processing apparatus, image processing method, and computer program product therefor, where the smoothing processing is executed when a peripheral pixel having a tone difference larger than a predetermined region around the target pixel (paragraph [0009], line 2-5, peripheral pixel is read on "the object unit image data").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the smoothing processing of Ishiguro in the system of Ishikawa in order to effectively restrain the tone of the target pixel from being affected or changed by the smoothing processing (paragraph [0008], line 8-10).

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi
05/30/2007.


JINGGE WU
SUPERVISORY PATENT EXAMINER